

IN THE CLAIMS

- Sub B' 1. (original) An apparatus for facilitating fusion of adjacent vertebrae, comprising:
an implant body dimensioned for positioning within an intervertebral space between upper and lower vertebrae to maintain the vertebrae in desired spaced relation to facilitate fusion thereof, said implant body including lower and upper surfaces for engaging the respective lower and upper vertebrae, and first and second side wall portions extending between said upper and lower surfaces, said first and second side wall portions being substantially solid, at least one of said first and second side wall portions having a substantially narrow longitudinal slit defined therein arranged to enhance flexibility of said one side wall portion.
2. (original) The apparatus according to claim 1 wherein each of said first and second side wall portions includes said longitudinal slit.
- a, 3. (original) The apparatus according to claim 1 wherein said implant body defines an internal chamber dimensioned for reception of bone growth inducing substances.
4. (original) The apparatus according to claim 1 wherein said implant body includes an internal bore extending through said upper and lower surfaces for reception of bone growth inducing substances.
5. (currently amended) The apparatus according to claim 4 wherein said implant body defines a at least one generally cylindrically-shaped bore.
6. (currently amended) The apparatus according to claim 5 wherein said implant body defines a plurality of said generally cylindrically-shaped internal bores.
7. (currently amended) The apparatus according to claim 6 wherein said generally cylindrically-shaped internal bores are arranged in adjacent side by side relation.

8. (original) The apparatus according to claim 1 wherein said upper and lower surfaces include a plurality of ridges, said ridges dimensioned to engage the respective upper and lower vertebrae to facilitate retention within the intervertebral space.

9. (original) The apparatus according to claim 1 wherein said upper and lower surfaces include a plurality of grooves defined therein, said grooves defining surfaces dimensioned to engage the respective upper and lower vertebrae to facilitate retention within the intervertebral space.

10. (original) The apparatus according to claim 1 wherein said implant body includes leading and trailing end portions, at least one of said leading and trailing end portions having a tapered surface.

11. (original) The apparatus according to claim 10 wherein said one of said leading and trailing end portions includes upper and lower tapered surfaces.

12. (original) The apparatus according to claim 11 wherein each said leading and trailing end portions include said upper and lower tapered surfaces.

13. (currently amended) The apparatus according to claim 5 further including a bone graft inducing substance disposed within said cylindrically-shaped bore, said bone graft inducing substance defining a substantially cylindrically-shape corresponding to said cylindrically-shaped internal bore of said implant body.

14. (original) A method for fusion of adjacent vertebrae, comprising the steps of:
accessing the intervertebral space defined between adjacent vertebrae;
providing an implant including an implant body having lower and upper surfaces and first and second side wall portions extending between said upper and lower surfaces, said first and second side wall portions being substantially solid, at least one of said first and second side wall portions having a substantially narrow longitudinal slit defined therein arranged to enhance flexibility of said one side wall portion; and

positioning said implant within the intervertebral space whereby said upper and lower surfaces engage upper and lower vertebral portions of adjacent vertebrae in supporting relation therewith while said longitudinal slit permits compressive movement of said implant body in response to a load exerted by the vertebral portions.

15. (original) The method according to claim 14 wherein said implant body defines an internal bore extending through said upper and lower surfaces, and further including the step of introducing bone growth inducing substances within said bore to facilitate fusion whereby said implant body and said bone growth inducing substances share the load exerted by the vertebral portions.

16. (currently amended) The method according to claim 15 wherein said implant body defines a generally cylindrically-shaped bore extending through said upper and lower surfaces and further including the step of harvesting a substantially cylindrically-shaped bone graft for positioning within said bore.

17. (original) The method according to claim 16 wherein the step of harvesting includes using a trephine to harvest the bone graft.

18. (new) The apparatus as set forth in claim 5 wherein there are three internal bores further including a generally cylindrical bone substitute plug within each of said generally cylindrical internal bores.

19. (new) The apparatus as set forth in claim 18 wherein the cylindrical internal bores are arranged in adjacent side by side relationship.

20. (new) A kit for fusion of adjacent vertebra comprising:
a plurality of implants, each having an implant body including upper and lower surfaces for engaging respective adjacent vertebra and sidewall positions extending between said upper and lower surfaces and surrounding an internal cavity having a plurality of generally cylindrical internal bores open to said upper and lower surfaces; and
a plurality of bone plugs sized to fit into each of said cylindrical internal bores.

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a. 21. (new) The kit as set forth in claim 20 wherein each implant internal cavity has three internal bores and a plug is provided for fitting into each bore.

22. (new) The kit as set forth in claim 20 wherein the bone plug material is selected from the group consisting of allograft bone, autograft bone, bone morphogenic proteins, bioceramics and hydroxyapatite.
